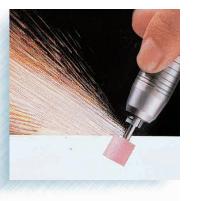
IMPULSE Series





- Best for high precision grinding, because IMPULSE has smooth rotational without the burs runout or vibration, even when motor speed is remarkable high.
- Incorporates a special vane air motor. Motor speed remains stable even under varying loads.
- Silencer on the exhaust air hose keeps the grinder very quiet.
- Use of high precision components in the **IMPULSE** provides excellent endurance to maintain micron specification.

IMPULSE SERIES ◀◀



Mounting & Dismounting Cutting Tool

Insert the spanner provided into the hole on the spindle and open or close the chuck with the Chuck Wrench to exchange the cutting tool.

Exchangeable Collet

Standard Size: ø3.0 mm (CHS-3.0) Optional Collets: CHS group Ø0.8 mm~Ø3.175 mm

Twist Free Hose

To prevent the twisting of hose, 360° Twist-Free Joint connects the motor and the hose.



Straight IMPULSE

Model NSP-601

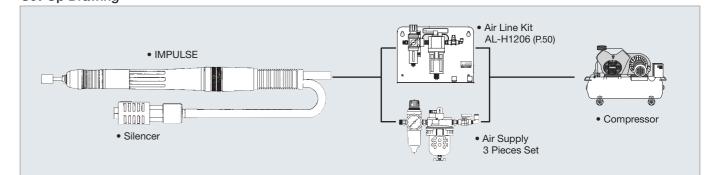
ON / OFF Ring

Easy to switch ON/OFF and to adjust motor speed, turning right & left.

Connecting Part To Air Line Kit

Built in air filter in air inlet coupling (the connection to air line kit).

Set-Up Drawing



■ Use Air Line Kit AL-H1206 or air supply 3 pieces set. (Air Filter, Air Regulator, Lubricator)

IMPULSE AIR GRINDER ◀◀

Code No.	1034
Model	NSP-601

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets: CHS group are shown in page (P.56)



- Straight type is designed for high speed precision grinding.
- The front part of the NSP-601 model is made of stainless steel ; the back portion of
- The safety design of clamping the chuck up to 29 mm maintains stable rotation of the
- The air motor is assembled with a special vane design which keeps constant speed under load providing stable grinding and polishing operation.

60° IMPULSE

40,000 min⁻¹

Code No.	1035
Model	NA45-400

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets: CHS group are shown in page (P.56)



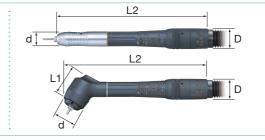
- Angled model housings are all aluminum alloy.
- Ideal for removing sharp edges at corners and surfaces difficult to reach with straight type.



Specifications Air Consumption Proper Air Pressure Inlet Air Hose Length : 1.5 m Eraser Hose Length : 1.2 m

Standard Accessories

- Collet ø3.0 mm (CHS-3.0) : 1 pc.
- Hose (K-213) : 1.5 m Silencer (K-208) : 1 pc.
- Spanner (8 x 5) : 1 pc. Bar Wrench (K-212) : 1 pc.



Code No.	d	D	L1	L2	Weight	Speed	Collet
1034	ø17	ø23.9	—	168	165 g	60,000 min ⁻¹	ø0.8~ø3.175 mm
1035	ø28.6	ø23.9	39.6	161	210 g	40,000 min ⁻¹	CHS Group (P.56)

PRECISION AIR GRINDER

Super Cut IMPULSE

Exclusive Tools P.69



90° Super Cut IMPULSE

23,000 min⁻¹

Code No.	1036
Model	NA90-230

Standard Size Collet

ø3.0 mm (CHS-3.0)

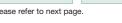
Optional Collets: CHS group are shown in page (P.56)



Mounted Points → NAKANISHI "POLISHING TOOLS" Catalog
 Disks → P.69-71







60° Super Cut IMPULSE

23,000 min⁻¹

Code No.	1037
Model	NA45-230

Standard Size Collet

ø3.0 mm (CHS-3.0)

Optional Collets: CHS group are shown in page (P.56)



64175 Sand Paper Disk ø31 #320 64177 Sand Paper Disk ø31 #600 64179 Sand Paper Disk ø31 #1000

▶ Mounted Points → NAKANISHI "POLISHING TOOLS" Catalog
 ▶ Disks → P.69~71







Specifications Air Consumption Proper Air Pressure Inlet Air Hose Length : 1.5 m Eraser Hose Length : 1.2 m

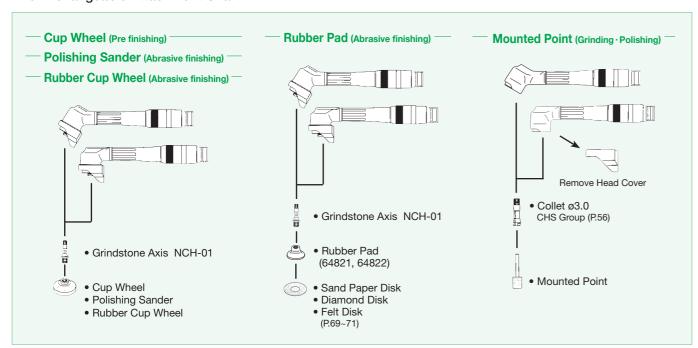
Standard Accessories

- Grindstone Axis (NCH-01): 1 pc.
- Silencer (K-208) : 1 pc. Spanner (8x5) : 1 pc. • Bar Wrench (K-212) : 2 pcs. • Hose (K-213) : 1.5 m
- Allen Wrench (1.5 mm): 1 pc.

Code No.	d	D	L1	L2	Weight	Speed	Collet
1036	ø33.5	ø23.9	34	156	190 g	23,000 min ⁻¹	ø0.8~ø3.175 mm
1037	ø33.5	ø23.9	39.6	163	190 g	23,000 min ⁻¹	CHS Group (P.56)

◆ Order by Code No.

The Exchangeable Attachment Chart

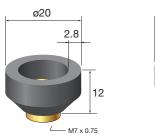


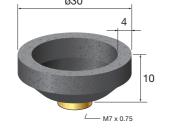
Rubber Pad



Cup Wheel

For pre finishing.

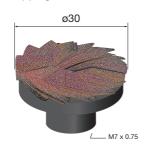




12 pcs./paci	23,000 min-1 N	/lax.	
Grit	Grade Hardness	Code No. (ø20)	Code No. (ø30)
# 36	Standard	64830	64835
# 46	Hard	64831	64836
# 80	Standard	64832	64837
# 80	Hard		64838

Polishing Sander

Abrasive Disk for high speed rotation is made from overlapping abrasive cloths.



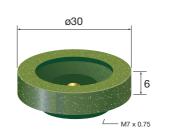
5 pcs./pack	23,000 min ⁻¹ Max.
Grit	Code No.
# 80	64842
# 120	64844
# 180	64846
# 240	64847
# 400	64849

Convenient Assorted set for trial polishing All grain size (5 types x each 1 pc.)
Total 5 pcs.-pack Code No. 64850 5 pcs./pack

Rubber Cup Wheel

Rubber Cup Wheel with high elasticity for grinding & polishing.





10 pcs./p	ack	23,000	min-1 Max.
Grit	Col	or	Code No.
# 60	Brown		64851
# 80	Red		64852
# 120	Blue		64853
# 180	Olive		64854
# 220	Green		64855
# 320	Brown		64856

Convenient Assorted set for trial polishing All grain size (6 types x each 2 pcs.) Total 12 pcs.-pack

Code No. 64859 12 pcs./pack

Air Line Kit (Automatic Lubricating Device)



- Air Pressure Gauge Air Regulator
- Air FilterLubricatorAir ON-OFF Valve

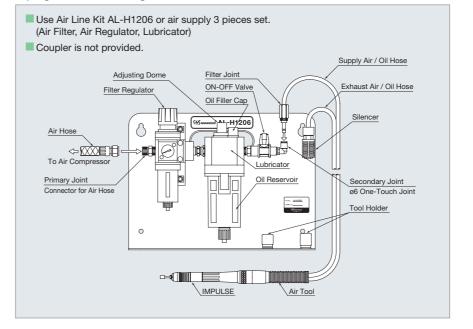
- Piping Hose (K-275) : 2 m • Lubricating Oil (K-211): 1 pc.



300(W) x 120(D) x 220(H) mm

- Supplies the smooth air flow and automatic lubrication for long life and the stable power.
- By adjustment of auto lubrication & air flow, this will extend the lifetime of air grinder.
- Best for grinding and polishing processes, AL-H1206 air line kit has a compact body with a carrying handle and holder to put the IMPULSE in.
- ♦ Weight: 2.2 kg ♦ Filter Mesh: 5 μm

Piping Connection Diagram



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♦ Order by Code No.

NAKANISHI

IMPULSE Series Spare Parts

Product	Description	Code No.	Model	Fit to
29—	Grindstone Axis (for Cup Wheel & Rubber Pad)	1045	NCH-01	IMPULSE
	Head Cover	1043	CNA	IMPULSE
8	Hose 1.5 m	1038	K-213	IMPULSE
	Silencer Small (w/Metal Fittings)	1061	K-208	IMPULSE
80	Spanner 8 x 5	2012		IMPULSE
	Bar Wrench (72 mm)	2013	K-212	IMPULSE
	Allen Wrench (1.5 mm)			IMPULSE Available in the market
The Party of the P	Lubricating Oil (70cc)	1057	K-211	For Air Line Kit AL-H1206
9	Lubricating Oil (1L)	1058	K-202	TOTALLING NILAL-TIZUO
71	Filter Joint (for ø6 Quick Disconnecting Joint)	2039	FJ-02	(For K-213 Hose)

PRESTO II AIR TURBINE GRINDER ◀◀

ULTRA-HIGH SPEED AIR TURBINE GRINDER

ø1.6 mm Bur Only

PRESTO II

320,000 min⁻¹

- Ultra high speed 320,000 min⁻¹ non-lube air turbine.
- It is most suitable for precision processing works such as small precision parts, ceramic, correction of printed circuit board, etc. due to its non-lube handpiece.
- Flexible tubing ensures excellent workability reducing fatigue to the operator's hand for long continuous use.

PRESTO II Standard Set

Code No.	1125
Model	PR2-304S

Standard Equipment

- Presto Handpiece (PR-304) : 1 pc. • Air Line Kit (PR2-06) : 1 pc.
- Foot Controller (AFC-40) : 1 pc.
- Handpiece Holder (Z014) : 1 pc.



Specifications

Rotating Speed : 320,000 min⁻¹ Proper Air Pressure: 0.25 MPa Air Consumption : 40 NL/min Inside Diameter : ø1.6 mm Bur Only

Filter Mesh : 5 µm

PRESTO Handpiece

320,000 min⁻¹

Code No.	1122
Model	PR-304

♦ Weight: 71 g (w/o Hose)

Standard Accessories • 2 m Hose

- One-touch ring type bur replacement
 - Ultra-high speed no lube air turbine handpiece ideal for delicate processing application.

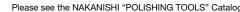
108.6

- Built-in dust protect mechanism developed by NAKANISHI ensures long durability.
- Chip air blows away the cutting powder and cools the cutting tool.
- Flexible tubing ensures excellent workability reducing fatigue to the operator's hand for long

PRESTO II Spare Parts

Product	Description / Specifications	Code No.	Model
9 1	PRESTO II Air Line Kit (w/o Lubricator / Filter Mesh 5 µm)	1126	PR2-06
—	PRESTO II Cartridge	1120	PR-03
	Foot Controller	1124	AFC-40
0	Piping Hose (ø6.0) 2 m Long	2041	K-237
0 0	Air Turbine Hose (ø5.1) 2 m Long	2042	K-238
62	Pin Spanner	2002	T-751

ø1.6 mm tools for PRESTO II









Mounted Points



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For safe use of the tools

- · Please read operation manuals before using any tools.
- Please keep all operation manuals on hand for reference whenever necessary.



Caution

sufficient light.

Incorrect use of the tools, or ignoring 'CAUTIONS for safety' described in the operating manuals, could cause fatal or serious bodily injury.

CAUTIONS



Always use safety glasses, mask, face guard for your safety.



Fasten the collet firmly.

Make sure the tool is fully installed in the collet to avoid tool slippage.



Do not touch the tools when in operation. Make sure the work area is neat and there is



Do not use damaged or broken electric cords and air hoses.



Do not use the tool where flammable liquids or gases exist.



Start at low speed and increase gradually to insure safe work.

This is particularly important for the use of new tools, large cutting tools and elastic tools such as rubber grindstone, sander and brush tools.



Do not leave operating tools.

other clamping fixture.

Confirm that the tool has stopped completely after switching off.



Keep the tools and products in a cool, dry place.

Check the tools carefully before use.

round shanks, etc.

and corrected.



Select proper tools and products for your application.

Select tools carefully considering the performance of the tools, work procedure and type/shape of the material.

Fix the work material firmly in a vise and/or



Stop grinding or polishing immediately whenever

Confirm that the tools are free of chips, cracks,

splits, scratches, irregular bondings, and out of

unusual sounds, vibrations, or wear are found. Restart the work only after the problem is found



Only use attachments, parts, consumable articles



accessories that may be caught in machinery. Long hair should be secured prior to machine



and accessories produced by NAKANISHI.



Check all tools carefully before use.

Do not wear loose clothing and/or

Clean the inside of the collet and tool shank, chips or fine metals inside the collet could cause tool slippage and result in damage to machinery or bodily injury.



overhang than 13 mm.

This can break and/or bend the tools. Use the tools within their design limitation. Excessive

Do not apply high pressure to or pry with the tools.

pressure will decrease the efficiency of your work and cause excessive wear of the tools.



The tools should be used by taking care of the overhang and below maximum allowable speed. The catalogue shows the maximum allowable speed at 13 mm overhang (distance between the

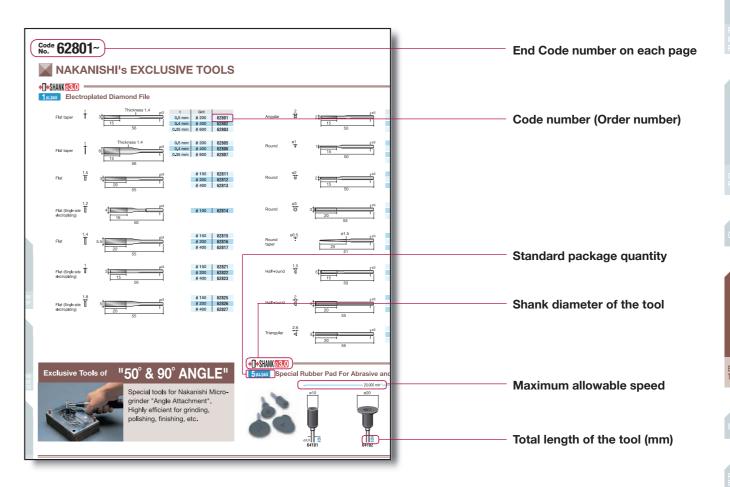
face of the collet and the top of the tool shank).

Overhang Maximum allowable speed (min⁻¹) Shown in the catalogue (A) Less than 13 mm Less than 20 mm (A) x 0.5 Less than 25 mm $(A) \times 0.3$ Less than 50 mm (A) x 0.1

Decrease the speed as shown in the table below, if you are using a longer

Symbols used in NAKANISHI Tools Catalogue

→ [] 4 \$HANK@3.0	Shank Diameter Shows shank diameter of the tools. Nakanishi produces tools with several shank diameters. *Nakanishi micro grinders utilize a collet system, which insures maximum precision. Therefore, please use the collet that best corresponds to the tool shank diameter.
10 pcs./pack	Standard Package One package is the minimum shipping unit. This number shows the number of pieces in the standard package (bag, box and etc.). Please order the number of packages needed for the desired quantity.
~20,000 min ⁻¹	Maximum allowable speed Do not exceed the maximum allowable tool speed. For your safety, use the tools below the indicated allowable speed. Start at low speed and increase gradually to insure safety. The preceding is particularly important for the use of new tools and machines. * Maximum allowable speed assumes an overhang of less than 13mm. Decrease speed if the overhang is more than 13mm. Refer to "Precautions for using Nakanishi Tools" on the next page. * Check the tools and machinery for mechanical defects prior to each use.
#100	Grit This shows grain size of various grinding tools. Rough Cutting

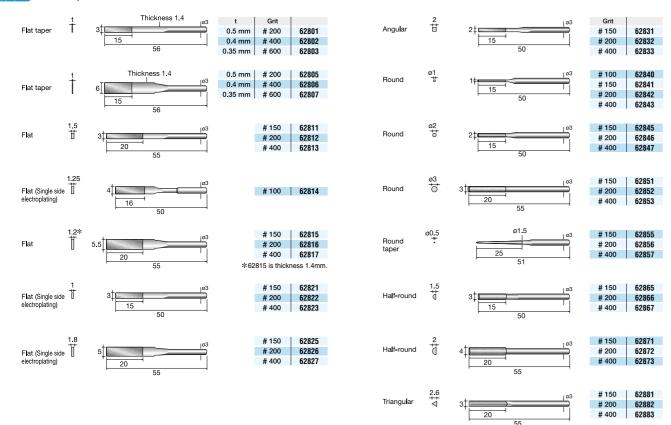


Exclusive Tools

Note: Specifications may be changed without notice. Colors of the tools in this catalogue may not be the same as actual colors due to printing limitations

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1 pc./pack Electroplated Diamond File

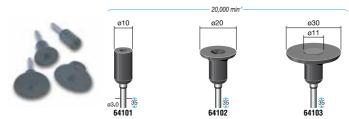


Exclusive Tools of "60° & 90° ANGLE"



Special tools for Nakanishi Microgrinder "Angle Attachment". Highly efficient for grinding, polishing, finishing, etc.

5pcs/pack Special Rubber Pad For Abrasive and Felt Disks



100 pcs./pack Sand Paper Disk

Cloth Type

• For Metals ·· Both for dry and wet finishing

		(AC	illesive is	resistai	it to wate	er ar
		ø11	ø2		ø31 ø11	
	(Grit	ø11	ø21	ø31	
	#	60	64111	64121	64141	
	#	80	64112	64122	64142	
	#	120	64113	64123	64143	
	#	180	64114	64124	64144	
Metals	#	240	64115	64125	64145	
	#	320	64116	64126	64146	
	#	400	64117	64127	64147	
	#	600	64118	64128	64148	
	#	800	64119	64129	64149	
	#1	,000	64120	64130	64150	

Paper Type

• For Metals ··· Both for dry and wet finishing (Adhesive is resistant to water and oil)

	ø1	1		ø31
	Grit	ø11	ø21	ø31
	# 80	64131	64151	64171
	# 120	64132	64152	64172
	# 180	64133	64153	64173
	# 240	64134	64154	64174
For Metals (Black)	# 320	64135	64155	64175
(Diack)	# 400	64136	64156	64176
	# 600	64137	64157	64177
	# 800	64138	64158	64178
	#1,000	64139	64159	64179
	#1,500	64140	64160	64180
			Adh	nesive Back

Paper Type

• Dry type ··· For Metal, Woodwork, Paint, Putty polishing, Dry use

		ø11	ø2 	1 (<u>Ø11</u>
	(Grit	ø11	ø21	ø31
	#	80	64201	64211	64221
	#	120	64202	64212	64222
or	#	180	64203	64213	64223
ry type White)	#	240	64204	64214	64224
	#	320	64205	64215	64225
	#	400	64206	64216	64226
	#	600	64207	64217	64227
				Adi	nesive Back

NAKANISHI's EXCLUSIVE TOOLS

100 pcs./pack Zirconium Disk

• Best for finishing aluminum, stainless steel, copper alloy, brass, etc.

-		3		
	100		6	
			1	1

	Grit	ø11	ø21	ø31			
#	60	64251	64261	64271			
#	80	64252	64262	64272			
#	120	64253	64263	64273			
#	150	64254	64264	64274			
	Adhesive Bac						

20 pcs./pack Fiber Disk

• Soft finishing can be done on flat & curved surfaces, due to superior flexibility.



Grit	Color	ø11	ø21	ø31	
# 120	Brown	64281	64291	64301	
# 240	Violet	64282	64292	64302	
# 320	Red Brown	64283	64293	64303	
# 600	Dark Blue	64284	64294	64304	
# 800	Gray	64285	64295	64305	
#1,000	Orange	64286	64296	64306	
*Thicknes	s 3 mm		Adhesive Bac		

20 pcs./pack Felt Disk

• Ideal for finishing using abrasives and diamond compounds.



Description	ø11	ø21	ø31
Soft Type Felt Disk (1mm thickness)	64331	64332	64333
Soft Type Felt Disk (2mm thickness)	64335	64336	64337
		Adhe	sive Bac

20 pcs./pack Felt Disk Chromium Oxide (Blue Rouge) Embedded Type.

• Useful for speedy finishing because of Chromium Oxid (Blue Rouge) Embedded.



A .	Description	ø11	ø21	ø31
	Felt Disk Chromium Oxide (Blue Rouge) Embedded Type. (2mm thickness)	64341	64342	64343
			Adhe	sive Back

20 pcs./pack Rubber Points Disk

• Best for coarse finishing, pre-finishing with great polishing power.



(Grit	Color	ø20	ø30	
#	60	Brown	64391	64401	
#	80	Red	64392	64402	
#	120	Dark Green	64393	64403	
#	180	Olive	64394	64404	
#	220	Green	64395	64405	
#	320	Brown	64396	64406	
*Thi	ickness	3 mm	Adhesive Back		

5 pcs./pack Mounted Rubber Disks (Rubber Pad Integration)

• Moderately hard abrasive grain have great polishing ability.

00	

For	finishin	9		
	Grit	Color	Color WA	
#	80	Pink	64411	
#	80	Purple		64421
#	120	Blue	64412	64422
#	180	Yellow	64413	
#	180	Green		64423
#	220	Green	64414	64424
#	320	Purple	64415	64425
#	500	Orange	64416	
#	500	Brown		64426



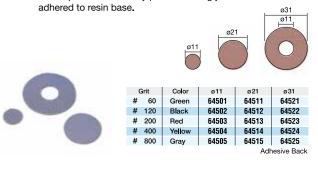
For preminary finishing (Fast grinding)						
(Grit	Color WA				
#	80	Black (Red Line)	64431			
#	120	Black (Blue Line)	64432			

1 pc./pack Diamond Disk (Fully Electroplated Type)

Superior in sharpness and durability.



	ø11	02	1	
ALC: UNIVERSITY OF THE PARTY OF	Grit	ø11	ø21	ø31
(EEC)(EE)	# 100	64451	64461	64471
	# 140	64452	64462	64472
1000	# 200	64453	64463	64473
	# 280	64454	64464	64474
No.	# 400	64455	64465	64475
	# 600	64456	64466	64476
	# 800	64457	64467	64477
	#1,000	64458	64468	64478
			Adl	hesive Back

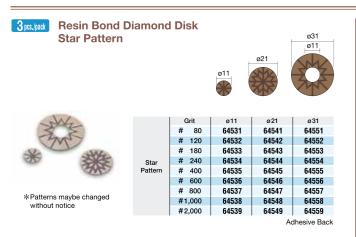


1 pc./pack Diamond Disk (Dot Electroplated Type, Wet Type)

• Electroplated nickel-alloy pellet is strongly

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NAKANISHI's EXCLUSIVE TOOLS



3 pcs./pack Lapping Film Disk Diamond Abrasive							
		Grit	Color	ø11	ø21	ø31	
	Diamond	# 400	Ivory	64601	64606	64611	
	Film	# 800	Ivory	64602	64607	64612	
	(Diamond)	#1,500	Ivory	64603	64608	64613	
		#3,000	Ivory	64604	64609	64614	
					Adh	nesive Back	

50 pcs./pack Lapping Film Disk WA Abrasive

Replacement

Brass Ring

		Grit	Color	ø11	ø21	ø31
		# 320	Pink	64621	64626	64631
	Arandom Film (WA)	# 600	Green	64622	64627	64632
		#1,000	Orange	64623	64628	64633
		#1,500	Olive	64624	64629	64634
		#3,000	Violet	64625	64630	64635
					Adh	nesive Back





• Plastic and brass lapping rings for use with

abrasive and diamond compounds.







"90° MINI ANGLE TYPE ATTACHMENT" **Exclusive Tools of**



Steel cutters for radius grinding of deep cross holes for "Mini-Angle attachment". Ideal for radius grinding of holes or removing burrs from cross jigs, precision parts and inside surfaces of pipes.

10 pcs./pack Replacement

Plastic Ring



MINI ANGLE TYPE Attachment (Very Small Head)

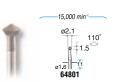


MINI ANGLE TYPE Attachment

→T+SHANK Ø 1.6

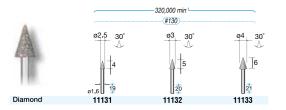
1 pc./pack Steel Cutters For Deep Cross Hole Finishing

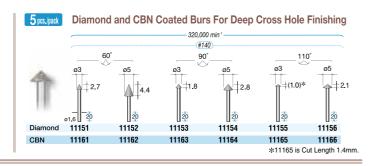




→[]**→**SHANK@1.6







NAKANISHI's EXCLUSIVE TOOLS





Special tools for Nakanishi Microgrinder "IMPULSE". Excellent for grinding or polishing flat surfaces, edges with Nakanishi's high-power air grinder.



12 pcs./pack Cup Wheel



64830 64835 # 36 Standard # 46 Hard 64831 64836 64837 64832 # 80 Standard

5 pcs./pack Polishing Sander

• Abrasive Disk for high speed rotation is made from overlapping abrasive cloths.

5 pcs./pack Special Rubber Pad for Disk Abrasives







64822





Exclusive Tools of "FINE BELT SANDER"





FINE BELT SANDER Attachment

30 pcs./pack Abrasive Belts

• High Quality Abrasive Belts are superior in grinding & durability.





 Assorted set for preliminary finishing (Mark) Grain size (4 types x each 10 pcs.), W = 8 mm

Assorted set for finishing (• Mark) Grain size (4 types x each 10 pcs.), W = 8 mm





· Assorted set for woodwork All grain size (3 types x each 10 pcs.)

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